

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Previously Presented) An integrated circuit, comprising:
a sensor operable to detect performance variations of an individual circuit in said
integrated circuit, wherein the individual circuit comprises a phase-locked
loop, and wherein said performance variation is related to aging of said
integrated circuit; and
a compensation circuit operable to change the operating characteristics of said
individual circuit to compensate for said performance variation in
accordance with an aging-versus time performance curve, wherein the
compensation circuit comprises a charge pump having multiple legs that can
be selectively enabled to change the performance characteristics of said
phase-locked loop.

4. (Previously Presented) The integrated circuit of claim 3, wherein said
compensation circuit comprises a power supply controlled by digital control words to
selectively change the operating characteristics of said phase-locked loop.

5. (Previously Presented) The integrated circuit of claim 3, comprising a
ring oscillator operable to approximate the effects of NBTI and to generate a compensation
signal corresponding thereto.

6. (Original) The integrated circuit of claim 5, wherein said compensation
signal is used to generate digital control words to control operation of a power supply.

1 7. (Original) The integrated circuit of claim 6, wherein said power supply
2 is operable to control operation of a voltage controlled oscillator in said phase-locked loop.

1 8. (Previously Presented) The integrated circuit of claim 3, wherein said
2 individual circuit is a delay-locked loop.

1 9. (Original) The integrated circuit of claim 8, wherein the compensation
2 circuit comprises:

3 a dummy delay line operable to generate a dummy delay line clock signal;
4 a reference source operable to generate a reference clock signal; and
5 a comparator operable to compare the dummy delay line clock signal and the
6 reference clock signal and to generate a control signal therefrom.

1 10. (Original) The integrated circuit of claim 9, further comprising a power
2 supply controller operable to control operation of the delay line of said delay-locked loop in
3 response to said control signal.

1 11. (Original) The integrated circuit of claim 10, wherein said power supply
2 controller controls operation of said delay line by generating a digital power supply control
3 word (VDD_DLL).

1 12. (Cancelled)

1 13. (Cancelled)

1 14. (Previously Presented) A method for controlling operation of an
2 integrated circuit comprising:

3 detecting performance variations of an individual circuit in said integrated circuit,
4 wherein the individual circuit comprises a phase-locked loop and wherein
5 said performance variation is related to aging of said integrated circuit; and
6 generating a compensation signal to change the operating characteristics of said
7 individual circuit to compensate for said performance variation in
8 accordance with an aging-versus time performance curve, wherein said
9 compensation signal is generated by a charge pump having multiple legs that
10 can be selectively enabled to change the performance characteristics of said
11 phase-locked loop.

1 15. (Previously Presented) The method of claim 14, wherein
2 compensation signal is generated by a power supply controlled by digital control words to
3 selectively change the operating characteristics of said phase-locked loop.

1 16. (Previously Presented) The method of claim 14, wherein said
2 compensation signal is generated by a ring oscillator operable to approximate the effects of
3 NBTI and to generate a compensation signal corresponding thereto.

1 17. (Original) The method of claim 16, wherein said compensation signal is
2 used to generate digital control words to control operation of a power supply.

1 18. (Original) The method of claim 17, wherein said power supply is
2 operable to control operation of a voltage controlled oscillator in said phase-locked loop.

1 19. (Previously Presented) The method of claim 14, wherein said
2 individual circuit is a delay-locked loop.

1 20. (Original) The method of claim 19, wherein the compensation circuit
2 comprises:
3 a dummy delay line operable to generate a dummy delay line clock signal;

4 a reference source operable to generate a reference clock signal; and
5 a comparator operable to compare the dummy delay line clock signal and the
6 reference clock signal and to generate a control signal therefrom.